

REMARKS

Claims 1-49 are pending in this application. By this Amendment, claims 1, 6, 13-20, 23-25, 27 and 35 are amended. Various amendments are made for clarity and for reasons unrelated to patentability.

Applicant gratefully acknowledges the Office Action's indication that claims 12, 15, 18-20, 23-26 and 37 are allowable over the prior art.

The Office Action rejects claims 1-5, 11, 27, 31, 38-41 and 46 under 35 U.S.C. §102(b) by previously cited U.S. Patent 5,590,133 to Billstrom et al. (hereafter Billstrom). The Office Action also rejects claims 6, 9-10, 13-14, 16-17, 21-22, 28-30, 32, 35-36, 44-45 and 47-49 under 35 U.S.C. §103(a) over Billstrom in view of U.S. Patent 5,850,391 to Essigmann. The rejections are respectfully traversed.

Various claims were previously rejected based on the Billstrom reference in the August 12, 2002 Office Action. The rejections based on Billstrom were subsequently removed after the October 28, 2002 Interview and the November 12, 2002 Amendment. The July 2, 2003 Office Action did not reject any of the claims based on Billstrom. However, after the filing of Appeal (and without any amendment of the claims since the November 12, 2002 Amendment), the Office Action again rejects the claims based on Billstrom. Applicant expressly maintains all previous arguments with respect to Billstrom.

Independent claim 1 recites a mobile switching center for detecting a service option included in the signal transmitted from the base stations and base station controllers and for

Reply to Office Action dated February 17, 2004

switching between a circuit data service and a packet data service based on the detected service option.

Billstrom (and Essigmann) does not teach or suggest at least these features of independent claim 1. The Office Action cites Billstrom's col. 6, lines 36-40 and 47-50 for the previously claimed mobile switching center. However, this section of Billstrom has no suggestion for a mobile switching center for switching between a circuit data service and a packet data service based on the detected service option. Furthermore, Billstrom's Figure 1 does not teach or suggest a mobile switching center for detecting a service option and for switching between a circuit data service and a packet data service based on the detected service option. Billstrom does not suggest switching between circuit data service and packet data service based on the detected service option (included in a signal transmitted from base stations and base station controllers). As such, independent claim 1 defines patentable subject matter.

Independent claim 27 defines patentable subject matter for at least similar reasons. That is, independent claim 27 recites a mobile switching center (MSC) configured to detect a service option included in the signal transmitted from the at least one base station and base station controller and to switch between a circuit data service and a packet data service based on the detected service option. Billstrom (and Essigmann) does not teach or suggest detection of a service option and switching between a circuit data service and a packet data service based on the detected service option.

Independent claim 10 also defines patentable subject matter. That is, independent claim 10 recites establishing a first call from a calling party mobile station to a mobile data network interworking unit and then establishing a first traffic channel. Independent claim 10 further recites establishing a second call from the called party mobile station to the mobile data network interworking unit when a data response comes from the called party mobile station and then establishing a second traffic channel after the mobile data path connection module informs the public network data path connection control module of a normal state of a first data path between a mobile switching center and the mobile data network interworking unit. Independent claim 10 further recites further recites connecting the first and second traffic channels through at least one modem of the interworking unit to perform circuit data service.

The Office Action admits that Billstrom does not teach or suggest connecting first and second traffic channels through at least one modem of an interworking unit to perform circuit data service. The Office Action then asserts that Essigmann (at col. 8, line 25) discloses connecting the first and second traffic channels through at least one modem of the interworking unit to perform circuit data service. However, this section of Essigmann merely relates to a first circuit call connection 200 and a second circuit call connection 210 between the serving MSC 30 and the telecommunications node 190. See Figure 3. However, this does not teach or suggest first and second traffic channels (as those channels are recited in claim 10) through at least one modem of the interworking unit to perform circuit data service. Stated differently, Essigmann's alleged traffic channels do not correspond with the claimed first traffic channel and second

traffic channel recited in independent claim 10. Therefore, the combination of Essigmann and Billstrom does not teach or suggest all the features of independent claim 10 including connecting the first and second traffic channels through at least one modem of the interworking unit to perform circuit data service. Thus, independent claim 10 defines patentable subject matter.

Independent claim 35 defines patentable subject matter for at least similar reasons. That is, independent claim 35 recites establishing a first call from a second mobile station to a mobile data network interworking unit and then establishing a first traffic channel. Independent claim 35 also recites establishing a second call from the first mobile station to the mobile data network interworking unit when a data response comes from the first mobile station and then establishing a second traffic channel after a mobile data path connection module informs a public network data path connection control module of a normal state of the first data path. Further, independent claim 35 recites connecting the first and second traffic channels through at least one modem of the mobile data network interworking unit to perform circuit data service.

For similar reasons as set forth above, Essigmann does not teach or suggest the claimed connecting the first and second traffic channels (as those channels are related in claim 35) through at least one modem of the mobile data network interworking unit to perform circuit data service. Billstrom does not suggest all the missing features. Thus, independent claim 35 defines patentable subject matter.

Independent claim 21 defines patentable subject matter for at least similar reasons. That is, independent claim 21 recites establishing a first traffic channel after establishing a first call

from a calling party mobile station to a first mobile data network interworking unit having at least one modem through a first mobile switching center, and establishing a second traffic channel after a second call from said called party mobile station to a second mobile data network interworking unit having at least one modem is established when said called party mobile station responds and said mobile data path connection module informs said public network data path connection control module of a normal state of a first data path. For similar reasons as set forth above, Essigmann does not teach or suggest these features in combination with Billstrom. Thus, independent claim 21 defines patentable subject matter.

Furthermore, independent claim 32 defines patentable subject matter for at least similar reasons as set forth above. That is, independent claim 32 recites a switching circuit, configured to selectively switch a connection between the circuit data processor and the data path connector in accordance with a control signal from the main processor to perform circuit data service, wherein the circuit data processor comprises at least one modem. Billstrom and Essigmann do not teach or suggest these features.

For at least the reasons set forth above, each of independent claims 1, 10, 21, 27, 32 and 35 define patentable subject matter. Each of the dependent claims depends from one of the independent claims and therefore defines patentable subject matter at least for this reason. In addition, the dependent claims also recite features that further and independently distinguish over the applied references. Applicants maintain that each of these dependent claims contain features that are not suggested by the applied references. For example, many of the dependent claims

Reply to Office Action dated February 17, 2004

include features relating to the modem, which are not suggested by Essignmann as alleged in the Office Action. For example, dependent claim 7 recites a modem control module controlling a modem equipped in the circuit data processing section. Dependent claim 14 (and similarly dependent claim 22) recites initializing a first modem equipped in the data network interworking unit, transmitting the identification number of the calling party mobile station and the modem initialization specification from the calling party mobile station to the first modem as well as reestablishing with a modem initialization specification required by the calling party mobile station. The Office Action does not even appear to address these features. It is respectfully submitted that Billstrom and Essigmann do not teach or suggest these features.

Dependent claim 17 recites detecting a service option included in the signal transmitted from the called party mobile station and requesting the data network interworking unit to establish a call when the detected service option is for a circuit data communication service. As discussed above, Billstrom and Essignmann do not teach or suggest detecting the service option.

Still further, dependent claim 31 recites a mobile connection control module to detect a service option included in the signal transmitted from the at least one base station and base station controller, and to generate a switching signal to control an interface connection. Still further, dependent claim 36 (and similarly dependent claims 40, 46 and 49) recites that the first data path is a mobile data path and the second data path is a public network data path. The Office Action does not appear to address this feature. Billstrom and Essigmann do not teach or suggest at least these features of claim 36 (and similarly claims 40, 46 and 49).

Serial No. 09/055,984
Reply to Office Action dated February 17, 2004

Docket No. K-018

For at least the reasons set forth above, each of claims 1-49 defines patentable subject matter. Withdrawal of the outstanding rejections are respectfully requested.

CONCLUSION

In view of the foregoing, it is respectfully submitted that the application is in condition for allowance. Favorable consideration and prompt allowance of claims 1-49 are earnestly solicited.

If the Examiner believes that any additional changes would place the application in better condition for allowance, the Examiner is invited to contact the undersigned attorney, **David C. Oren**, at the telephone number listed below.

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made for entry of this amendment to the Abstract as well as any other matter for this application. Please charge any shortage in fees due in connection with the filing of this, concurrent and future replies, including extension of time fees, to Deposit Account 16-0607 and please credit any excess fees to such deposit account.

Respectfully submitted,
FLESHNER & KIM, LLP



Daniel Y.J. Kim
Registration No. 36,186
David C. Oren
Registration No. 38,694

P.O. Box 221200
Chantilly, Virginia 20153-1200
703 766-3701 DYK:DCO/kah/dcp
Date: June 17, 2004